

Amendments to the Specification

Please insert the following before "Background of the Invention" of page 1:

Cross Reference To Related Applications

This is a continuation of United States Patent Application No. 09/770,865, filed January 26, 2001, which is a continuation of United States Patent Application No. 09/189,332, filed November 9, 1998, now United States Patent 6,266,814, which is a continuation of United States Patent Application No. 08/419,077, filed April 6, 1995, now United States Patent 5,880,768.

Please replace the paragraph on page 12, lines 18-34 with the following:

Using a satellite transmitter 58, the data center 52 transmits the program schedule information to the headend telecasting center 54 via a satellite 60. The program schedule information is received by a satellite receiver 62, which in turn transfers the data to a headend computer 64. Preferably, the data center 52 provides a continuous feed of program schedule information to the headend telecasting center 54, so that the headend telecasting center can quickly recover from any unexpected

loss of data. The continuous feed also ensures that the headend telecasting center [[62]] 54 is provided with any updates to the program schedule information soon after they are made. The data center 52 preferably provides program schedule information to the headend telecasting center 54 for the current day and at least six additional days following the current day.

Please replace the paragraph on page 19, lines 10-20 with the following:

There are two ways to remove the quickmenu 116 from the screen 100 (or from any other screen that the quickmenu 116 is displayed on). The Menu key on the remote control 78 ~~(FIG. 1)~~ (FIG. 2) acts as a toggle, so that when the quickmenu 116 is displayed, the Menu key having first been pressed, pressing the Menu key again removes it. The viewer can also clear the quickmenu 116 by pressing the Up Arrow key. When the quickmenu 116 is cleared, the viewer can navigate in the underlying screen as appropriate for the current display mode.

Please replace the paragraph on page 21, lines 18-34 with the following:

The program grid 112, the time bar 102, and the channel bar 108 scroll as needed when the viewer attempts to

move the cursor beyond the displayed program schedule information. For example, if the viewer presses the Left Arrow key while the program cell 127 is highlighted, the program grid 112 and the time bar 102 will scroll sufficiently far to the right to allow the display of program schedule information for the program scheduled for telecast immediately prior to the one indicated by the program cell 127. Continuation icons 132 indicate that particular programs start before or finish later than the times currently displayed in the time bar 102. The viewer can see when such programs start or end by scrolling the program grid 112 using the arrow keys corresponding to the directions indicated by the continuation icons [[128]] 132.

Please replace the paragraph on page 25, line 29, to page 26, line 11 with the following:

Yet another alternative embodiment is described in connection with FIG. 29. In this embodiment, a Program Guide screen 140 includes a time bar 142, a channel bar 144, and a program grid 146 that operate in substantially the same manner as described above in connection with FIGS. 3-6. However, in this embodiment, the program grid 146 includes a navigation cell 148 that preferably contains at least two icons representing navigation points. The icons may

represent any of the navigation points discussed above, but in this example, the navigation cell 148 includes [[an]] a "What's On" icon 150 and a "Hot Picks" icon 152. The icon 150 is shown highlighted, indicating the location of a cursor. The viewer can navigate the cursor from any of the program cells in the program grid 146 to either of the icons 150 and 152 using the navigation keys on the remote control 78 (FIG. 2), as described above.

Please replace the paragraph on page 32, lines 4-10 with the following:

The program menu 206 includes a menu header 222 that identifies the number of programs that meet the active search selection criterion. At least one group header 224 is also displayed in the program menu 206. The group headers 224 identify the subgroups [[that]] resulting from the application of the active sort attribute to the program schedule information.

Please replace the paragraph on page 37, line 33, to page 38, line 14 with the following:

The menu 404 also contains a plurality of cells 410 for displaying channel numbers and call signs corresponding to the viewer's favorite channel line-up. When the Favorite Channel display mode is invoked, the viewer's previously

selected favorite channel line-up is retrieved from the memory 76 (FIG. 2). In the example shown in FIG. 8 FIG. 9, the viewer's favorite channel line-up includes the nine channels shown in the cells 410. An unused cell 412 is left empty. If the viewer had not previously established a favorite channel line-up, the menu 404 would consist of an array of empty cells 412. If the viewer's favorite channel line-up includes more channels than can be displayed at once, the menu 404 can be scrolled (like the menu 402) to display additional channels. To scroll the menu 404, the viewer first moves the cursor to the menu 404 by using the Left or Right Arrow key.

Please replace the paragraph on page 39, line 31, to page 40, line 7 with the following:

Once a favorite channel line-up has been stored in the memory [[78]] 76 (FIG. 2), it is automatically applied to the program schedule information each time the interactive program guide is invoked. In an alternative embodiment, the interactive program guide allows for creation and storage of several different favorite channel line-ups (e.g., one for each member of a household). To accomplish this, the interactive program guide requests a personal identification number (not shown) each time the guide is invoked. The

personal identification number is used to uniquely identify each favorite channel line-up.

Please replace the paragraph on page 40, line 30, to page 41, line 7 with the following:

The screen 500 further includes a program title window 502, a description window 504, a video clip window [[56]] 506, and a menu window 508. When the screen 500 is invoked by selecting a program from either the screen 100 (FIGS. 3-6) or the screen 200 (FIG. 7), the program title window 502 displays the title of the selected program. In addition, the description window 504 displays more information which may be included in the program schedule information stored in the memory 76 (FIG. 2) for the selected program. Such information may include the telecast date and time, the channel, featured performers, MPAA rating, etc.

Please replace the paragraph on page 41, line 29, to page 42, line 4 with the following:

The menu choice "Add to Scheduled Viewing List" is used to add an entry for the selected program into the scheduled viewing list. When the current time approaches or matches the telecast time for a program listed in the scheduled viewing list, the display 84 (FIG. 3) (FIG. 2)

displays a prompt (not shown) notifying the viewer that a program of interest is about to start. The prompt is displayed (as long as the display 84 is on) even if the interactive program guide is not active. The viewer can clear the prompt by pressing any navigation key on the remote control 78 (FIG. 2).

Please replace the paragraph on page 44, line 21, to page 45, line 6 with the following:

The display 550 is shown highlighted, indicating the presence of a cursor that the viewer can control using the navigation keys. If the viewer presses the Right Arrow key from the display 550, the channel number in the upper left corner of the display 84 (FIG. 2) immediately disappears. In addition, a display 556 appears in place of the display 550. The display 556 still does not present program schedule information (i.e., no channel is displayed). Rather, the display 556 includes a time bar 558 preferably containing four time cells 560 each representing a one half hour period of programming. The display 556 also includes a single-line program grid 562 containing, in this example, a plurality of program cells 564, 566, 568, and 570. Like the program cells of the program grid 112 (FIGS. 3-6), the widths of the program cells 564, 566, 568, and 570 vary in

accordance with the lengths of the programs identified in the program cells. Thus, a program cell for a two hour program would span the entire width of the program grid [[662]] 562.

Please replace the paragraph on page 47, line 26, to page 48, line 8 with the following:

If the current time is approaching a stored telecast time, the control unit (FIG. 2) then determines at test [[608,]] 608 which list the telecast time is stored in. If the telecast time is stored in the scheduled viewing list, the control unit 74 (FIG. 2) causes the display 84 (FIG. 2) to display a prompt (as long as the display 84 is turned on) notifying the viewer that a scheduled program is about to be telecast. In an alternative embodiment, the control unit 74 (FIG. 2) may cause the display 84 (FIG. 2) to display several prompts prior to the scheduled telecast time (e.g., one each minute for the three minutes preceding the scheduled telecast time). Of course, other prompt schedules may be used as deemed appropriate. After the last prompt is displayed, the control unit 74 (FIG. 2) deletes the entry for the scheduled program from either the scheduled program list or the recording list at step 612.

Please replace the paragraph on page 49, lines 9-17 with the following:

FIGS. ~~11-12~~ 12-13 represent the Program Guide routine 628, which is performed by the control unit 74 (FIG. 2) in order to provide the Program Guide display mode (FIGS. 3-6). After the Program Guide routine 628 is invoked, a series of tests 630, 632, 634, 636, and 638 are performed to determine how the control unit 74 (FIG. 2) will present program schedule information in the program guide screen 100 (FIGS. 3-6).

Please replace the paragraph on page 50, lines 10-31 with the following:

If it is determined at test 632 that the Prime Time navigation point is set, the control unit 74 (FIG. 2) then determines at test 650 whether the current time period is later than the starting prime time stored in the memory 76 (FIG. 2). If it is, test 651 is performed to determine if earlier prime time data is still available for display. If earlier data is not available (because such data were discarded), the control unit 74 (FIG. 2), at step 652, causes the display 84 (FIG. 2) to display the main channel line-up in the screen 100 (FIGS. 3-6) starting at the beginning of the database, or alternatively, at the beginning of tomorrow's prime time. If the current time period is not later than the starting prime time hour (test 650), or if

earlier prime time data is available (test 651), the control unit 74 (FIG. 2), at step 654 causes the display 84 (FIG. 2) to display the main channel line-up (which may be sorted in accordance with the viewer's favorite channel selections) starting at the ~~current time period~~ prescribed prime time hour (e.g., 7:00 pm) in the screen 100 (FIGS. 3-6). After either step 652 or 654, the control unit 74 (FIG. 2) proceeds to test 634.

Please replace the paragraph on page 53, lines 22-30 with the following:

After test 694 or step 696, the control unit 74 (FIG. 2) performs a series of tests to determine the viewer's quickmenu choice. At test 698, the control unit 74 (FIG. 3) (FIG. 2) determines if the viewer selected the "Hot Picks" navigation point. If so, step 700 is performed to set the navigation point to "Hot Picks." The quickmenu 116 (FIG. 3) is then cleared and control is passed to the Program Guide routine (FIGS. 12-13) at step 702.

Please replace the paragraph on page 53, lines 31-34 with the following:

At test 704, the control unit 74 (FIG. 2) determines if the viewer selected the "~~Prime Time.~~" "Prime Time" navigation point. If so, step 706 is performed to set

the navigation point to "Prime Time." The quickmenu [[118]] 116 (FIG. 3) is then cleared and control is passed to the Program Guide routine (FIGS. 12-13) at step 708.

Please replace the paragraph on page 54, line 31, to page 55, line 2 with the following:

At test 732, the control unit 74 (FIG. 2) determines if the viewer selected the Favorite Channel display mode. If so, the quickmenu 116 (FIG. 3) is then cleared and control is passed to [[a]] the Favorite Channel routine (described below in connection with FIGS. 24-28) at step 734.

Please replace the paragraph on page 55, lines 3-7 with the following:

At test 736, the control unit 74 (FIG. 2) determines if the viewer selected the "Player" "Player" quickmenu choice. If so, the quickmenu 116 (FIG. 3) is cleared and control is passed to the selection routine (FIGS. 16-18) at step 738.

Please replace the paragraph on page 55, line 34, to page 56, line 8 with the following:

At test 748, the control unit 74 (FIG. 2) determines if the viewer selected the "Tune to Program"

player menu choice (i.e., if the selected program is currently being telecast). If so, the interactive program guide is deactivated (i.e., cleared from the display [[82]] 84 (FIG. 2)) at step 750. The control unit 74 (FIG. 2) then causes the tuning circuitry 72 (FIG. 2) to tune to the channel that is carrying the selected program at step 752. The program is then displayed on the display 84 (FIG. 2).

Please replace the paragraph on page 59, lines 7-17 with the following:

At step 822, the control unit 74 (FIG. 2) retrieves from the memory 76 (FIG. 2) program schedule information for programs meeting the active selection criterion. The retrieved programs are sorted in accordance with the active sort attribute at step 824. At step 826, the selected programs are displayed in the appropriate order in the program menu 206 (FIG. 7) on the display 84 (FIG. 2). The control unit 74 (FIG. 2) also causes the display 84 (FIG. 2) to display the total number of programs found and the group headers in the program menu 206 ~~(FIG. 2)~~ (FIG. 7).

Please replace the paragraph on page 60, lines 13-21 with the following:

If the control unit 74 (FIG. 2) determines at test 850 that the program menu 206 (FIG. 2) is active,

test 852 is performed to determine if the next program in the direction indicated by the key pressed by the viewer is currently displayed in the program menu 206 (FIG. 7). If it is, the cursor is moved to the next program at step 854. Otherwise, the program menu 206 (FIG. 7) is first scrolled at step 856 before step 854 is performed.

Please replace the paragraph on page 60, lines 22-33 with the following:

At step 836, the control unit 74 (FIG. 2) sets a pointer to the program that was most recently highlighted in the program menu 206 (FIG. 7). At test 858, the control unit 74 (FIG. 2) checks if the viewer pressed Select key on the remote control 78 (FIG. 2). If not, the control unit 74 (FIG. 2) proceeds to test [[862]] 860. Otherwise, test 862 is performed to determine if the program menu 206 (FIG. 2) is the active menu. If it is not, the control unit 74 (FIG. 2) proceeds to test 860. Otherwise, control is passed to the Selection routine (FIGS. 16-18) at step 864.

Please replace the paragraph on page 61, lines 19-29 with the following:

The control unit 74 (FIG. 2) then proceeds to perform a series of tests to determine if the viewer pressed the Right, Left, Down, or Up Arrow Key. If the control

unit 74 (FIG. 2) determines at test 878 that the Right Arrow key was pressed, test 880 is performed to determine if the next calendar cell to be highlighted is currently displayed. If it is, the cursor is moved to the next calendar cell at step 882. If not, the control unit 74 (FIG. 2) causes the calendar menu 302 (FIG. 8) to advance to the next month at step 884 before step 882 is performed.